

SWBAT

observe / identify what affects speed of falling objects

Sep 4-7:31 AM

Welcome!!!

SECA CP Physics
Tuesday 17 November 2015

PEDs with Passing



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Room C-244

- Open to page 33, 35, 37 for check-off
- Pick up Friday's worksheet

Centering
(jokes)

Opening Question:
What is free fall? What kind of equations can we use for free fall?

Class business: pizza party

Sep 7-7:04 AM

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Sep 5-9:09 AM

Pg 34 - "Easy" UAM problems
(Let me know if you need "Beginner" mode)

Done?

Challenge 1: find the 5th variable for each

Challenge 2: Create your own word problem

$$v_f = v_i + a\Delta t$$

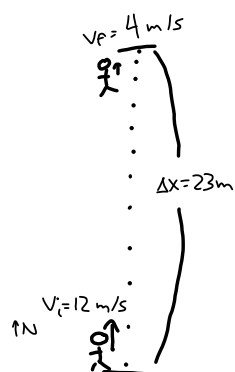
$$\Delta x = v_i\Delta t + \frac{1}{2}a\Delta t^2$$

$$v_f^2 = v_i^2 + 2a\Delta x$$

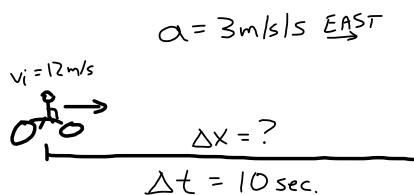
$$\Delta x = \frac{1}{2}(v_i + v_f)\Delta t$$

v_i = velocity initial
 v_f = velocity final
 a = acceleration
 Δx = displacement
 Δt = change in time

PIC FOR #1



PIC FOR #2



Nov 11-8:03 AM

GRAVITY: g
 SPEEDS THINGS UP \downarrow 10m/s
 EVERY
 SECOND

$$v_i = \downarrow 20\text{m/s} \quad \$20$$

$\rightarrow g + 10\text{m/s EVERY SECOND}$
 $\$10 \text{ EVERY SECOND}$

$$20\text{m/s} + 10\text{m/s} + 10\text{m/s} + 10\text{m/s} =$$

1s 2s 3s

Nov 17-9:55 AM

Why do some things speed up more than others when they fall?

Book and Feather (boring):

Golf ball and ping pong ball:

2 Kleenex:

Nov 16-8:07 AM

Falling objects...

gravity accelerates



FEATHER & BALL IN VACUUM

<http://www.youtube.com/watch?v=4z8g8OSOMzY>

FEATHER & HAMMER ON MOON

http://www.youtube.com/watch?v=SC5_dOEyAfk

SKIDNING

<http://www.youtube.com/watch?v=ur40O6nQHsw>

Oct 10-7:53 AM